# Strategy

Key assumptions:

1. Cost per trade is 0.002 USD

Whenever the top of the orderbook buy spread has crossed below -0.002 or the sell spread has crossed above +0.002, we initiate a trade.

Upon initiation of the trade, we look at the orderbook depth, to see if we can extract as much volume as possible such that we do not compromise much on the spread.

So if the top of the orderbook buy spread is -0.005, going down the orderbook will result in a worse off price like -0.0035 but we have more volume captured.

We start by building up positions on either side first, e.g. shorts, then unwinding e.g. buying back until there is 0. Then we restart the process of building up positions again.

The parameter to optimize is the level to unwind at, of which we must parse through the following values of unwinding [0, 0.002, 0.004, …, 0.020]. So a buy spread would unwind at +0.004 and sell spread would unwind at -0.004.

# Back-testing Results

From a list of possible spread levels to unwind at, 0 (pre cost) generates the most absolute dollar PNL for the arbitrage strategy.

A graph with a line going up

AI-generated content may be incorrect.

Assuming a 2% margin required to trade this spread, and the fact that the max open positions this strategy has accumulated is 23,502.4 LINKUSDT, and at a price of 27 USD, we have generated 39.41 USD of profits, which is 0.3% return in this 2 hour timeframe.

39.41 / 0.02 \* 23502.4 \* 27 = 0.3% return.

Risk wise, a 1 basis point against the position in our largest accumulated position of 23,502.4 LINKUSDT coins would move 63.45 USD which is risking 0.14% of capital.